

**REMARKS**

Claim 9, the independent claim under consideration, has been amended to limit the base material to materials set forth in the specification on page 3 at lines 8 and 12. These materials were also limitations in claims 21 and 23. As the limitations of these claims have been introduced into claim 9, these claims have been canceled.

Claim 9 has also been amended in accordance with the specification on page 6 at lines 3-6 in combination with line 10 and in further combination with lines 21-25.

Claim 9 has also been amended to clarify that the microorganism layer covers the coating water-insoluble substance; this is the original meaning of the claim as well, but this has now been more explicitly pointed out.

Claims 12 and 14 have been amended only to change their dependency and claim 1 has been amended to depend from claim 9 to permit rejoinder. Claim 8 has been canceled.

No new matter has been added and entry of the amendment is respectfully requested.

**The Formal Objections**

These have been addressed by amendment. Claim 8 has been canceled; claim 12 refers, now, to claim 11 which describes a water-insoluble layer and claim 14 now depends from claim 9 thus eliminating the asserted ambiguity of the claim.

**The Rejection Under 35 U.S.C. § 101**

Only claims 9 and 11 were rejected as assertedly reading on nature. It is believed that the amendment to claim 9 obviates this rejection; it is noted that claims 21 and 23 which contain the limitations now in claim 1 were not subject to this rejection. Further, as a uniform color is now required, such a composition would not occur in nature. This rejection may therefore be withdrawn.

Asserted Anticipation

Claims 9-11 were rejected as assertedly anticipated by a bench, a fence, a deck or outdoor wooden furniture object coated with sealant or oil-based paint and covered with mildew or mold. It is noted that claims 21 and 23 were not included in this rejection although garden furniture is listed in claim 23. However, as a uniform color is required, it is clear that the objects subject to mildew would no longer anticipate.

Claims 8-11, 15-16, 18 and 20 were rejected as anticipated by Selvig, *et al.* (U.S. 5,919,689). It is noted that claims 21 and 23 were not included in this rejection, and as these limitations have been introduced into claim 9, Selvig no longer anticipates for that reason alone.

In addition, it appears that Selvig does not teach a coating of a water-insoluble substance at the surface and a microorganism layer covering the insoluble material. Apparently Selvig prepares a mixture of the water-insoluble material and the microorganisms as the Office appears to acknowledge on page 5 of the Office action by characterizing the teachings of Selvig as directed to “paints containing microorganism (sic) such as bacteria and/or fungi.” This is verified in Example 11 which describes mixtures of microorganisms and paint. For this reason, as well, Selvig does not anticipate.

In addition, Selvig makes no mention of utilizing pigmented microorganisms in order to provide a uniform color at the surface.

Claims 8-13, 18, 20 and 21 were rejected as assertedly anticipated by McDaniel (US2004/0109853). There are several reasons that this rejection is in error, in particular with regard to the claims as amended, and, like Selvig, it is apparent that McDaniel does not envision a coating of a water-insoluble substance which is covered by a microorganism layer.

There are at least three ways in which McDaniel differs. First, McDaniel does not employ intact organisms, but rather biomolecules that are obtained therefrom. This is apparent from the sections quoted by the Office and their related paragraphs. Paragraph 116 defines a “biomolecule composition” as a composition comprising a biomolecule which in turn refers to a compound comprising one or more chemical moieties synthesized in living organisms and several examples follow. Intact microorganisms are never mentioned. Further, the next several pages describe a large number of actual biomolecules; applicant is unable to find any reference to the use of microorganisms *per se*. This is further supported in paragraphs 263, 275, 290, 335, 336, 713, 714 and 716 of McDaniel.

In addition, like Selvig, McDaniel describes a mixture of the biomolecule with an insoluble component, not a separate layer thereof. Example 11 states that “the biomolecular composition of the present invention may be incorporated into a standard coating by direct addition.” Paragraph 875 describes this in more detail. Example 12 cited by the Office refers apparently to the thickness of a film obtained from a mixture of these materials.

In addition, there is no mention in McDaniel of providing a uniform color by using pigmented organisms. Accordingly, this basis for rejection may properly be withdrawn.

None of claims 14, 17, 19 or 23 have been rejected for anticipation.

#### Asserted Obviousness

All examined claims, claims 8-21 and 23, were rejected as assertedly obvious over McDaniel in view of Selvig and in further view of Blanchettete (U.S. 5,538,752).

As noted above, McDaniel fails to teach the limitations of claims 8-13, 18, 20 and 21 and thus does not form an appropriate primary document with regard to the obviousness rejection. The

Office states, however, that even if McDaniel does not teach a living organism, it would have been obvious to a person to use living organisms because Selvig teaches the use of innocuous microorganisms. But neither Selvig nor McDaniel teach the further limitations of claim 9 that the microorganisms are in a layer that covers a coating of insoluble material, not in admixture therewith. Selvig does not remedy this deficiency in McDaniel. Neither document suggests using the microorganism to obtain a uniform color at the surface of the base material. And, as acknowledged by the Office, neither document teaches the limitations of claims 14, 17, 19 or 23.

Applicant does not rely on the limitations of claim 14, however, to confer patentability. Neither does applicant rely on the limitations of claims 15 or 16 to impart patentability.

With regard to claim 17, the Office offers an extensive discussion of case law for the proposition that a thickness of this dimension (also a portion of claim 12) is inherently obvious. Again, this limitation need not be relied upon for patentability.

As to claim 19, the Office points to McDaniel at paragraph 336 which among the many imaginative possibilities included in that document, it is mentioned that it might be nice to protect surfaces from UV light. In this case, however, apparently an inorganic pigment is used. The Office then states that Blanchette teach the use of melanin as a pigment to absorb UV light and protect material from UV radiation. Applicant is unable to find such a disclosure in Blanchette. Blanchette in the abstract discusses using melanin to control decay, not to absorb UV light. As a matter of fact, the addition of Blanchette is counterintuitive since Blanchette makes clear at the top of page 2 that the decay that is being protected against is that caused by microorganisms. It hardly makes sense, then, to use a microorganism to provide the melanin. Such a suggestion simply does not flow from

